REMARKS

The present application was filed on October 12, 2001 with claims 1-18. Claims 19 was added in an amendment dated July 27, 2006. Claims 1, 7, 13, 15, 17 and 19 are the independent claims.

Claims 1- 3, 7-9 and 13-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,529,954 (hereinafter "Cookmeyer") in view of U.S. Patent No. 6,944,584 (hereinafter "Tenney").

Claims 4-6 and 10-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Cookmeyer in Tenney further in view of Ma et al., "Mining Event Data for Actionable Patterns," IBM T.J. Watson Research Center, Hawthorne, New York, the Computer Management Group, 2000 (hereinafter "Ma").

Claim 19 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ma in view of Tenney.

Turning now to the rejections in the present Office Action, Applicants respectfully traverse such rejections and request reconsideration of the present application in view of the remarks below.

The claimed invention is directed to, for example, as recited in amended independent claim 7, a computer-based method of providing decision support to an analyst in accordance with an event management system which manages a network with one or more computing devices. The method comprises the steps of automatically analyzing, off-line, data representing past events associated with the network of computing devices being managed by the event management system, the automated off-line analysis comprising generation of one or more visualizations of one or more portions of the past event data and discovery of one or more patterns in the past event data, and automatically managing rules off-line, the automated off-line rule management comprising construction and validation of one or more rules formed in accordance with the automated off-line analysis of the past event data. Independent claims 1, 13, 15 and 17 recite similar limitations.

Thus, Applicants respectfully point out that the claimed invention provides the feature of a combined off-line automatic data analysis and off-line rule management methodology. That is, both data analysis and rule management are provided in a single automated off-line tool.

With regard to the §103(a) rejections, Applicants initially note that a proper case of obviousness requires that the cited references when combined must "teach or suggest all the claim limitations," and that there be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references or to modify the reference teachings. See Manual of Patent Examining Procedure (MPEP), Eighth Edition, August 2001, §706.02(j).

Applicants submit that the Examiner has failed to establish a proper case of obviousness in the §103(a) rejection of claims 1- 3, 7-9 and 13-18 over Cookmeyer and Tenney, in that the Cookmeyer and Tenney references, even if assumed to be combinable, fail to teach or suggest all the claim limitations, and in that no cogent motivation has been identified for combining the references or modifying the reference teachings to reach the claimed invention.

The Examiner in formulating the §103(a) rejection of claim 1 argues that each and every one of the above-noted limitations is met by the collective teachings of Cookmeyer and Tenney. Below, Applicants explain how such portions of Cookmeyer and Tenney fail to teach or suggest what the Examiner contends that they teach or suggest. While Applicants may refer from time to time to each reference alone in describing its deficiencies, it is to be understood that such arguments are intended to point out the overall deficiency of the cited combination.

Cookmeyer does not disclose a combined off-line automatic data analysis and off-line rule management methodology, as in the claimed invention. Applicants respectfully point out that the only "off-line" operation that Cookmeyer suggests is with regard to "expert analysis." In fact, the only occurrences of the term "off-line" in Cookmeyer appear at col. 5, line 44; col. 5, line 58; col. 5, line 62; col. 21, line 46; and col. 5, line 53, and in each occurrence, it is clear that the term "off-line" is used only in the context of "expert analysis" and not in the context of a combined automatic data analysis and rule management methodology, as in the claimed invention.

The relationship between the so-called expert analysis and the rules can be seen in the Abstract of Cookmeyer, which states that the rule-based expert analysis system of Cookmeyer "allows the rules that are used in the analysis to be defined at run time, instead of fixed rules which are defined at design time and which use fixed threshold values" (underlining added for emphasis).

Thus, any rules that Cookmeyer refers to are defined at run time (i.e., online) rather than at design time (i.e., offline). Hence, Cookmeyer does not disclose that one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data, as in the claimed invention.

However, whether or not one can suggest that Cookmeyer discloses rule management that is associated with some form of expert analysis, it is clear that Cookmeyer does not disclose that one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data, as recited by the claimed invention. That is, there are no steps/operations disclosed in Cookmeyer for offline rule construction and offline rule validation that are based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data (again, underlining added for emphasis). Again, rules are handled in Cookmeyer at run time, not offline.

For the sake of explanation, assume that in Cookmeyer, "Capture File" occurrences are representative of past events associated with the network of computing devices being managed by the event management system, and an off-line analysis of the "Capture File" occurrences is performed. Cookmeyer does not teach or suggest generating one or more visualizations of one or more portions of the "Capture File" occurrences and discovering one or more patterns associated with the "Capture File" occurrences. Rather, an analysis of the "Capture File" occurrences in Cookmeyer results in generating "events" and "symptoms" which are accumulated in a Results Journal. Furthermore, there is no suggestion in Cookmeyer that one or more rules are constructed offline and validated offline based directly on at least a portion of the Results Journal. In contrast, the claimed invention recites performing "automated rule off-line management comprising construction and validation of one or more rules formed in accordance with the automated off-line

analysis of the past event data, wherein one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data."

The Examiner looks to the Tenney reference to supplement the above-noted deficiencies of Cookmeyer as applied to claim 1. The Examiner refers to Tenney at column 5, lines 21-32 as teaching or suggesting the rule management and analysis of the data can be done off-line. In contrast, the relied-upon portion of Tenney refers to robot systems utilizing proprietary robot controllers, such that the inventive server software is compatible with the proprietary controllers and can communicate with them through serial ports, dynamically linked library calls, Ethernet, or ActiveX calls. Tenney does not teach or suggest server software automatically analyzing, off line, data representing past events associated with the proprietary controllers, or automatically managing rules off-line, the automated off-line rule management comprising construction and validation of one or more rules formed in accordance with the automated off-line analysis of the past event data. The only reference in Tenney to being offline is regarding simulated commanded positions of the robots (if operating in simulation mode). (Tenney, column 8, lines 1-2).

The Tenney reference fails to supplement the above-noted deficiencies of Cookmeyer as applied to claim 1. Accordingly, it is believed that the combined teachings of Cookmeyer and Tenney fail to meet the limitations of claim 1.

Also, the Examiner has failed to identify a cogent motivation for combining Cookmeyer and Tenney in the manner proposed. The Examiner provides the following statement of motivation beginning at page 4, second paragraph of the Office Action:

> It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Cookmeyer by providing an off-line analysis as taught by Tenney in order to secure rule management and analysis of the data and prevent other user to monitor the analysis.

Applicants respectfully submit that this is a conclusory statement of the sort rejected by both the Federal Circuit and the U.S. Supreme Court. See KSR v. Teleflex, No. 13-1450, slip. op. at 14

(U.S., Apr. 30, 2007), quoting In re Kahn, 441 F. 3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."). There has been no showing in the present §103(a) rejection of claim 1 of objective evidence of record that would motivate one skilled in the art to combine Cookmeyer and Tenney to produce the particular limitations in question. The above-quoted statement of motivation provided by the Examiner appears to be a conclusory statement of the type ruled insufficient in KSR v. Teleflex.

For at least these reasons, Applicants assert that claim 1 is patentable over Cookmeyer and Tenney.

Independent claims 7, 13, 15 and 17 include limitations similar to those of claim 1, and are therefore believed allowable for reasons similar to those described above with reference to claim 1.

Dependent claims 2, 3, 8, 9, 14, 16 and 18 are allowable for at least the reasons identified above with regard to claims 1, 7, 13, 15 and 17. One or more of these claims are also believed to define separately-patentable subject matter over the cited art. Accordingly, withdrawal of the §103(a) rejection of claims 1-3, 7-9 and 13-18 is respectfully requested.

With regard to the §103(a) rejection of claims 4-6 and 10-12 as being unpatentable over Cookmeyer in view of Tenney further in view of Ma, Applicants assert that the Ma reference fails to remedy the deficiencies described above with regard to Cookmeyer and Tenney. Thus, claims 4-6 are patentable at least by virtue of their dependency from claim 1 and claims 10-12 are patentable at least by virtue of their dependency from claim 7. Accordingly, withdrawal of the §103(a) rejection of claims 4-6 and 10-12 is respectfully requested.

With regard to the §103(a) rejection of claim 19, Applicants respectfully traverse on the ground that the Ma and Tenney references fails to teach or suggest each and every limitation of claim 19.

Independent claim 19 is directed to an event management decision support system for providing decision support to an event management system which manages a network with one or more computing devices. The event management decision support system comprises of: an event

analysis module, further comprising of an event mining module and an event visualization module, wherein the event mining module discovers patterns in event data, and wherein the event visualization module provides a mechanism for visualizing at least a result of a pattern discovery and a rule analysis; and a rule management module, further comprising a rule validation module and a rule construction module, wherein the rule validation module maintains consistency of at least a rule with the event data and wherein the rule construction module provides a mechanism for constructing one or more rules based on event patterns mined by the event mining module; wherein the one or more rules are constructed offline by the rule construction module and validated offline by the rule validation module based directly on at least a portion of the one or more visualizations generated offline by the event visualization module from the corresponding offline analysis of the one or more portions of the event data and the offline discovery of at least a portion of the one or more patterns in the event data by the event mining module.

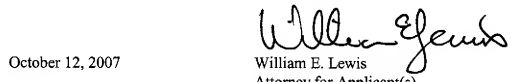
In characterizing the Ma reference as allegedly meeting certain limitations of claim 19, the Examiner relies on page 2, third and fourth paragraphs and page 3, third paragraph of Ma. No where in the relied-upon portions of Ma does the Ma reference teach or suggest constructing one or more rules offline by the rule construction module and validating offline by the rule validation module based directly on at least a portion of the one or more visualizations generated offline by the event visualization module from the corresponding offline analysis of the one or more portions of the event data and the offline discovery of at least a portion of the one or more patterns in the event data by the event mining module.

The Examiner looks to the Tenney reference to supplement the above-noted deficiencies of Ma. As noted above with regard to claim 1, the only reference in Tenney to being offline is regarding simulated commanded positions of the robots (if operating in simulation mode).

The Tenney reference fails to supplement the above-noted deficiencies of Ma as applied to claim 19. Accordingly, it is believed that the combined teachings of Ma and Tenney fail to meet the limitations of claim 19.

In view of the foregoing, Applicants believe that claims 1-19 are believed to be in condition for allowance, and respectfully request withdrawal of the §103(a) rejections.

Respectfully submitted,



Date: October 12, 2007

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